

U.S. EPA
Sustainable Water
Infrastructure
and
Climate Change Initiatives

Karen Schwinn
Associate Director
Water Division

Sustainable Infrastructure initiative

- **Water systems are aging**
- **Population is increasing/shifting**
- **\$500 billion payment gap over next 20 years**
- **Climate change will impact infrastructure needs**

Sustainable Infrastructure initiative

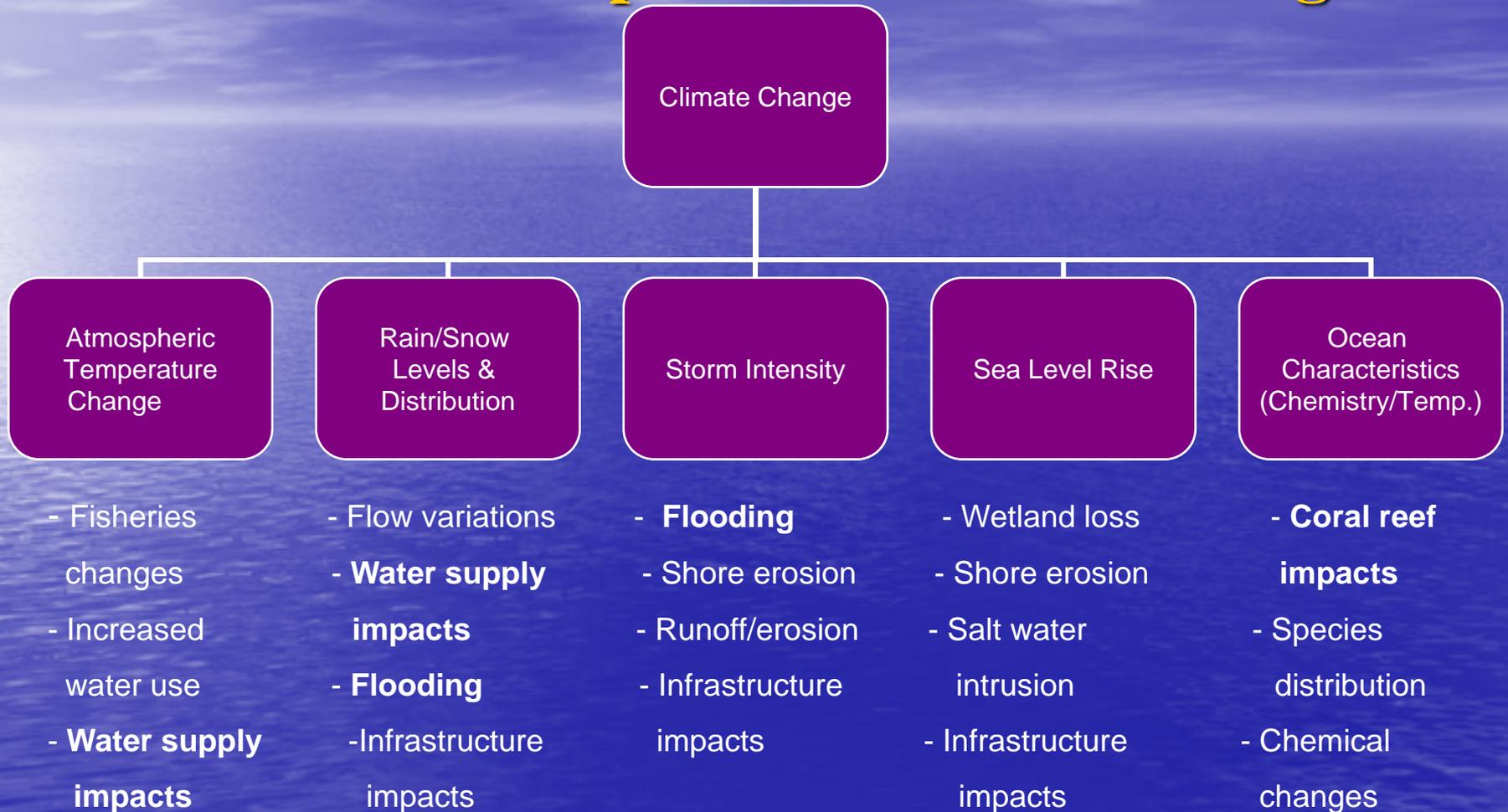
- Better management
- Full cost pricing
- Water efficiency
- Watershed-based approaches

Climate change

EPA Headquarters Office of Water

- "National Water Program Strategy: Response to Climate Change" – initiated March 2007

Adverse Water Impacts of Climate Change



Climate change

EPA Headquarters Office of Water

- "National Water Program Strategy: Response to Climate Change" (9/08)

EPA Region 9

- Energy and Climate Change Strategy (2007)
- new Sustainable Infrastructure Office in Water Division (3/09)

Sustainable Infrastructure +

- Better management
- Full cost pricing
- Water efficiency
- Watershed-based approaches
- Energy efficiency

Why focus on energy efficiency at water/wastewater facilities?

- **Water infrastructure uses a large amount of energy**
- **Reduced operating costs frees up funding for capital improvements and/or hiring more operators**
- **Leads to improved effluent (and receiving water) quality**
- **Reduces greenhouse gas emissions**

EPA Region 9 Sustainable Infrastructure Program mission statement:

*Promote sustainable infrastructure and
reduce greenhouse gas emissions by
increasing water and energy efficiency in
water, wastewater, and stormwater
infrastructure throughout Region 9.*

Encourage EMS approach

Step 1- Conduct Energy STAR Portfolio Manager Analysis

Step 2- Conduct energy audit

Step 3- Implement audit recommendations

Step 4- Repeat Step 1

Guidance and tools

- **EPA HQ Office of Water**
www.epa.gov/infrastructure
Energy Management Guidebook
- **EnergySTAR benchmarking tool**

Outreach and training

- Energy management workshops
- EnergySTAR benchmarking sessions
- National webcasts
- Region 9 SI website

<http://epa.gov/region09/waterinfrastructure>

American Reinvestment and Recovery Act (ARRA)

- increased funding to the Clean Water and Drinking Water State Revolving Funds
- the "Green Project Reserve"
- added support to EPA Regions

Future activity

- ARRA implementation and oversight
- larger SRF with continued Green Project reserve requirement???
- revised Water Climate Change Strategy??
- revised utility recognition program